

इंटरनेट

मानक

Disclosure to Promote the Right To Information

Whereas the Parliament of India has set out to provide a practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority, and whereas the attached publication of the Bureau of Indian Standards is of particular interest to the public, particularly disadvantaged communities and those engaged in the pursuit of education and knowledge, the attached public safety standard is made available to promote the timely dissemination of this information in an accurate manner to the public.

“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 12017 (1987): Cypermethrin Technical Concentrate [FAD 1: Pesticides and Pesticides Residue Analysis]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

BLANK PAGE



IS : 12017 - 1987

Indian Standard
SPECIFICATION FOR
CYPERMETHRIN TECHNICAL CONCENTRATE

(First Reprint OCTOBER 1996)

UDC 632.951 CYP

© Copyright 1987

BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

Indian Standard

SPECIFICATION FOR CYPERMETHRIN TECHNICAL CONCENTRATE

Pest Control Sectional Committee, AFCDG 6

Chairman

DR R. L. RAJAK

Representing

Directorate of Plant Protection, Quarantine & Storage (Ministry of Agriculture & Rural Development), Faridabad

Members

- | | |
|--|---|
| DR P. K. AGGARWAL | IDMA Laboratories, Chandigarh |
| SHRI ACHINT CHAUDHRY (<i>Alternate</i>) | |
| DR H. L. BAMI | Pesticides Residue Analysis Sectional Committee, AFDC 56, BIS |
| DR B. BANERJEE | Tea Research Association, Jorhat |
| DR G. SATYANARAYANA (<i>Alternate I</i>) | |
| SHRI S. C. DAS (<i>Alternate II</i>) | |
| DR S. R. BAROAH | Pesticides Formulators Association of India (SSI), Bombay |
| SHRI O. K. BHATNAGAR | Agriculture Department, Government of Uttar Pradesh, Lucknow |
| SHRI RAM NARAIN SINGH (<i>Alternate</i>) | |
| SHRI N. S. BIRDIE | Shriram Institute for Industrial Research, Delhi |
| SHRI R. K. BANERJEE (<i>Alternate</i>) | |
| SHRI D. CHATTERJEE | Agriculture Department, Government of West Bengal, Calcutta |
| SHRI M. V. DESAI | Atul Products Limited, Atul |
| SHRI A. R. DESAI (<i>Alternate</i>) | |
| SHRI G. D. GOKHALE | Bombay Chemicals Private Limited, Bombay |
| SHRI P. M. JADHAV (<i>Alternate</i>) | |
| SHRI B. K. VIJAYA GOPAL | Agromore Limited, Bangalore |
| SHRI S. K. RAMAN (<i>Alternate</i>) | |
| DR R. C. GUPTA | Central Insecticides Laboratory, Directorate of Plant Protection, Quarantine & Storage (Ministry of Agriculture & Rural Development), Faridabad |
| SHRI S. K. GHOSH (<i>Alternate I</i>) | |
| SHRI R. S. SHARMA (<i>Alternate II</i>) | |
| DR S. S. GUPTA | Bayer (India) Limited, Bombay |
| DR R. N. JUKAR (<i>Alternate</i>) | |
| DR V. N. IYER | Coromandel Indag Products India (P) Limited, Madras |
| DR M. O. ALIAS (<i>Alternate</i>) | |

(Continued on page 2)

© Copyright 1987

BUREAU OF INDIAN STANDARDS

This publication is protected under the *Indian Copyright Act* (XIV of 1957) and reproduction in whole or in part by any means except with written permission of the publisher shall be deemed to be an infringement of copyright under the said Act.

IS : 12017 - 1987

(Continued from page 1)

<i>Members</i>	<i>Representing</i>
SRI N. L. KALRA	National Institute of Communicable Diseases, Delhi
SRI G. C. JOSHI (Alternate)	
DR R. L. KALRA	Punjab Agricultural University, Ludhiana
DR R. P. CHAWLA (Alternate)	
DR KALYAN SINGH	C. S. A. University of Agriculture & Technology, Kanpur
DR S. K. KASHYAP	National Institute of Occupational Health (ICMR), Ahmadabad
SRI M. P. SHAH (Alternate)	
DR KENOHAIAR	Department of Agriculture, Government of Karnataka, Bangalore
SRI JASWANT SINGH KHOKHAR	Agriculture Department, Government of Punjab, Chandigarh
SRI S. G. KRISHNAN	National Organic Chemical Industries Limited, Bombay
DR J. S. VERMA (Alternate)	
SRI S. K. MAJUMDAR	Central Food Technological Research Institute (CSIR), Mysore
SRI N. MUTHU (Alternate)	
SRI B. P. S. MANN	Pesticides Association of India, New Delhi
DR B. S. SHETTY (Alternate I)	
SRI T. V. JAGADISAN (Alternate II)	
SRI K. S. MITTA	Bharat Pulverising Mills Private Limited, Bombay
SRI S. CHATTERJEE (Alternate)	
DR A. L. MOOKERJEE	Cynamid India Limited, Bombay
DR A. P. SHETTY (Alternate)	
DR S. K. MUKERJI	In personal capacity
SRI NAWAB SINGH	National Malaria Eradication Programme, Delhi
CH KRISHNA RAO (Alternate)	
SRI Y. A. PRADHAN	Rallis India Limited, Bombay
SRI M. L. SHAH (Alternate)	
DR P. S. RAMANATHAN	Gharda Chemicals Private Limited, Thane
DR A. M. MALTE (Alternate I)	
SRI D. G. UDAS (Alternate II)	
DR N. K. ROY	Agricultural Chemicals Division, Indian Agricultural Research Institute (ICAR), New Delhi
SRI H. V. RUPAREL	Gujarat Insecticides Limited, Ankleshwar
DR J. K. ASTIK (Alternate)	
SRI P. K. RAO	Ministry of Defence (DGI)
SRI P. N. AGARWAL (Alternate)	
SECRETARY (CIB & RC)	Central Insecticides Cell, Directorate of Plant Protection, Quarantine & Storage (Ministry of Agriculture & Rural Development), Faridabad
SRI V. C. BHARGAVA (Alternate I)	
DR SHANTI SARUP (Alternate II)	
DR K. D. SHARMA	Directorate General of Technical Development, New Delhi
SRI N. R. NARAYANAN (Alternate)	
SRI V. C. SHARMA	Department of Agriculture, Government of Rajasthan, Jaipur
DR K. N. SHRIVASTAVA	Shaw Wallace Company Limited, Calcutta
SRI R. N. ROYCHOWDEURY (Alternate)	

(Continued on page 6)

AMENDMENT NO. 1 OCTOBER 1988
TO
IS : 12017 - 1987 SPECIFICATION FOR
CYPERMETHRIN TECHNICAL CONCENTRATE

(*Page 4, Table 1*) — Insert the following after Sl No. (iv) under the respective columns;

(1)	(2)	(3)	(4)	(5)	(6)
v)	3-phenoxybenzaldehyde (MPB) content, percent by mass, <i>Max</i>	1.0	1.5	B	—
vi)	Cis-trans ratio, percent by mass of the nominal value	<i>Cis Min</i> 40.0 <i>Cis Max</i> 60.0	40.0 60.0	C	—

(AFCDC 6)

Printed at Swatantra Bharat Press, Delhi, India

AMENDMENT NO. 2 JANUARY 1990
TO
IS : 12017 - 1987 SPECIFICATION FOR
CYPERMETHRIN TECHNICAL CONCENTRATE

[*Page 4, Table 1, (see also Amendment No. 1)*] — Delete SI No. (v) and entries under its respective columns, and renumber 'SI No. (vi)' as 'SI No. (v)'.

[*Page 4, Table 1, col 3, (see also Amendment No. 1)*] — Substitute 'Trans Max 60.0 for 'Cis Max 60.0'.

(FADC 1)

Printed at Printwell Printers, Delhi, India

Indian Standard

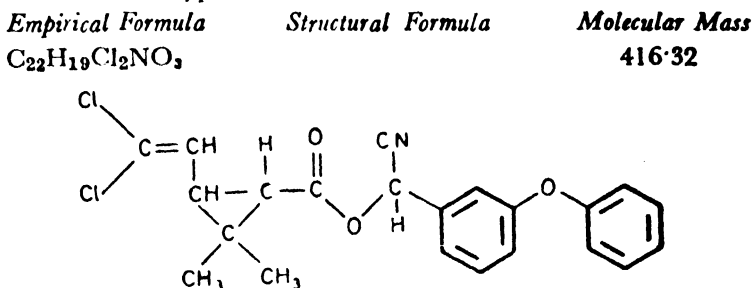
SPECIFICATION FOR CYPERMETHRIN TECHNICAL CONCENTRATE

0. FOREWORD

0.1 This Indian Standard was adopted by the Bureau of Indian Standards on 30 June 1987, after the draft finalized by the Pest Control Sectional Committee had been approved by the Agricultural and Food Products Division Council and the Chemical Division Council.

0.2 Cypermethrin technical concentrate is an^{*} insecticide employed in the preparation of insecticidal formulations for the control of agricultural insect pests.

0.3 Cypermethrin is the common name accepted by International Organization for Standardization (ISO) for (RS)- α -Cyano-3-phenoxy benzyl (1, RS)-cis-trans-3-(2, 2 dichlorovinyl)-2,2-dimethyl cyclopropane carboxylate. The empirical and structural formulae, and the molecular mass of cypermethrin are indicated below:



0.4 In the preparation of this standard, due consideration has been given to the provisions of the *Insecticides Act*, 1968, and Rules framed thereunder. However, this standard is subject to the restrictions imposed under the Act and Rules, wherever applicable.

0.5 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

*Rules for rounding off numerical values (revised).

IS : 12017 - 1987

1. SCOPE

1.1 This standard prescribes the requirements, and method of sampling and test for cypermethrin technical concentrate.

2. REQUIREMENTS

2.1 Description — The material shall be in the form of clear brown liquid free from visible extraneous matter.

2.2 The material shall comply with the requirements specified in Table 1.

TABLE 1 REQUIREMENTS FOR CYPERMETHRIN, TECHNICAL CONCENTRATE

SL No.	CHARACTERISTIC	REQUIREMENT		METHOD OF TEST, REF TO	
		Grade I	Grade II	Appendix of IS : 12015-1987*	Cl No. of IS : 6940-1982†
(1)	(2)	(3)	(4)	(5)	(6)
i)	Cypermethrin content, percent by mass, <i>Min</i>	50.0	70.0	A	—
ii)	Acidity (as H_2SO_4), percent by mass, <i>Max</i>	0.15	0.20	—	11.3.2
iii)	Moisture content, percent by mass, <i>Max</i>	0.1	0.1	—	4.1
iv)	Relative density at 27°C/27°C, <i>Min</i>	1.0	1.0	—	5

*Specification for cypermethrin technical.

†Methods of test for pesticides and their formulations (*first revision*).

3. PACKING

3.1 Packing — The material shall be packed according to the requirements given in IS : 8190 (Part 2)-1980*.

3.2 Marking — The container shall bear legibly and indelibly the following information and other additional information as required under the *Insecticides Act* and Rules:

- Name of the materials;
- Name of the manufacturer or trade-mark;
- Date of manufacture;

*Requirements for packing of pesticides: Part 2 Liquid pesticides (*first revision*).

- d) Batch number;
- e) Cypermethrin content, percent (m_1/m);
- f) Net mass of content; and
- g) The cautionary notice as worded in the *Insecticides Act* and Rules.

3.3 BIS Certification Marking

The product may also be marked with Standard Mark.

3.3.1 The use of the Standard Mark is governed by the provisions of the Bureau of Indian Standards Act, 1986 and the Rules and Regulations made thereunder. The details of conditions under which the licence for the use of Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

4. SAMPLING

4.1 Representative samples of the material shall be drawn as prescribed in IS : 10946-1984*.

5. TESTS

5.1 Tests shall be carried out by the methods referred to in col 4 and 5 of Table 1.

5.2 Quality of Reagents — Unless specified otherwise, pure chemicals and distilled water (*see* IS : 1070-1977†) shall be employed in the tests.

NOTE — 'Pure chemicals' shall mean chemicals that do not contain impurities which affect the results of analysis.

*Methods of sampling for technical grade pesticides.

†Specification for water for general laboratory use (*second revision*).

IS : 12017 - 1987

(Continued from page 2)

<i>Members</i>	<i>Representing</i>
SHRI J. L. SIPAHIMALANI	CMA Laboratories, Bombay
SHRI A. H. KARANCHI (<i>Alternate</i>)	
DR R. SOMAN	Sudarshan Chemical Industries Limited, Pune
SHRI K. RATHI (<i>Alternate</i>)	
DR R. V. VENKATARATNAM	Regional Research Laboratory (CSIR), Hyderabad
DR NAGABHUSHAN RAO (<i>Alternate</i>)	
SHRI T. PURNANANDAM,	Director General, BIS (<i>Ex-officio Member</i>)
Director (Agri & Food)	

Secretary

SHRI LAJINDER SINGH
Joint Director (Agri & Food), BIS

BUREAU OF INDIAN STANDARDS

Headquarters:

Manak Bhavan, 9 Bahadur Shah Zafar Marg, NEW DELHI 110002

Telephones: 323 0131, 323 8375, 323 9402

Fax : 91 11 3234062, 91 11 3239399

Telegrams : Manaksanstha
(Common to all Offices)
Telephone

Central Laboratory :

Plot No. 20/9, Site IV, Sahibabad Industrial Area, Sahibabad 201010

8-77 00 32

Regional Offices:

Central : Manak Bhavan, 9 Bahadur Shah Zafar Marg, NEW DELHI 110002 323 76 17

*Eastern : 1/14 CIT Scheme VII M, V.I.P. Road, Maniktola, CALCUTTA 700054 337 86 62

Northern : SCO 335-336, Sector 34-A, CHANDIGARH 160022 60 38 43

Southern : C.I.T. Campus, IV Cross Road, MADRAS 600113 235 23 15

†Western : Manakalaya, E9, Behind Marol Telephone Exchange, Andheri (East), MUMBAI 400093 832 92 95

Branch Offices:

*Pushpak, Nurmohamed Shaikh Marg, Khanpur, AHMEDABAD 380001 550 13 48

‡Peepya Industrial Area, 1st Stage, Bangalore-Tumkur Road, BANGALORE 560058 839 49 55

Gangotri Complex, 5th Floor, Bhadbhada Road, T.T. Nagar, BHOPAL 462003 55 40 21

Plot No. 62-63, Unit VI, Ganga Nagar, BHUBANESHWAR 751001 40 36 27

Kalaikathir Buildings, 670 Avinashi Road, COIMBATORE 641037 21 01 41

Plot No. 43, Sector 16 A, Mathura Road, FARIDABAD 121001 8-28 88 01

Savitri Complex, 116 G.T. Road, GHAZIABAD 201001 8-71 19 96

53/5 Ward No.29, R.G. Barua Road, 5th By-lane, GUWAHATI 781003 54 11 37

5-8-56C, L.N. Gupta Marg, Nampally Station Road, HYDERABAD 500001 20 10 83

E-52, Chitaranjan Marg, C-Scheme, JAIPUR 302001 37 29 25

117/418 B, Sarvodaya Nagar, KANPUR 208005 21 68 76

Seth Bhawan, 2nd Floor, Behind Leela Cinema, Naval Kishore Road, LUCKNOW 226001 23 89 23

Patliputra Industrial Estate, PATNA 800013 26 23 05

T.C. No. 14/1421, University P. O. Palayam, THIRUVANANTHAPURAM 695034 6 21 17

Inspection Offices (With Sale Point) :

Pushpanjali, 1st Floor, 205-A, West High Court Road, Shankar Nagar Square, NAGPUR 440010 52 51 71

Institution of Engineers (India) Building 1332 Shivaji Nagar, PUNE 411005 32 36 35

*Sales Office is at 5 Chowringhee Approach, P.O. Princep Street, CALCUTTA 700072 27 10 85

†Sales Office is at Novelty Chambers, Grant Road, MUMBAI 400007 309 65 28

‡Sales Office is at 'F' Block, Unity Building, Narashimaraja Square, BANGALORE 560002 222 39 71